

WHAT IS CLAIMED IS:

1. A method for generating an image, comprising:
receiving light at a plurality of sensors, the light
associated with a plurality of images;

5 repeating the following for each sensor of the
plurality of sensors:

determining a previous matrix comprising image
information associated with a previous image of the
plurality of images;

10 generating current image data corresponding to
a current image of the plurality of images; and

determining a current matrix using the previous
matrix and the current image data, the current matrix
comprising image information associated with the current
15 image; and

computing a fusion matrix according to the current
matrix of each sensor of the plurality of sensors, the
fusion matrix operable to initiate generation of a fused
image.

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2. The method of Claim 1, wherein determining a
current matrix further comprises calculating a change
matrix indicating a change associated with the previous
matrix and the current image data.

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3. The method of Claim 1, wherein determining the
current matrix further comprises determining a difference
between the current image data and the previous matrix.

4. The method of Claim 1, wherein computing the fusion matrix further comprises computing the fusion matrix only if a change matrix indicates a change associated with a previous matrix and a current matrix.

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5. The method of Claim 1, wherein computing the fusion matrix further comprises computing the fusion matrix at a fusion processor, the fusion processor comprising a member of the group consisting of a neural net, a plurality of logic operators, a field programmable gate array (FPGA), one or more solid state circuits, and a hardware architecture.

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6. The method of Claim 1, further comprising generating a display matrix according to the fusion matrix, the display matrix operable to generate the fused image.

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7. The method of Claim 1, further comprising displaying the fused image generated in accordance with the fusion matrix.

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8. The method of Claim 1, further comprising processing each current matrix to enhance one or more components of each current matrix.

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9. The method of Claim 1, wherein each sensor of the plurality of sensors is associated with a particular wavelength range.

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10. A system for generating an image, comprising:
a plurality of sensors operable to receive a light,
the light associated with a plurality of images; and
a processor coupled to the plurality of sensors and
operable to:

repeat the following for each sensor of the
plurality of sensors:

determine a previous matrix comprising
image information associated with a previous image of the
plurality of images;

generate current image data corresponding
to a current image of the plurality of images; and

determine a current matrix using the
previous matrix and the current image data, the current
matrix comprising image information associated with the
current image; and

compute a fusion matrix according to the
current matrix of each sensor of the plurality of
sensors, the fusion matrix operable to initiate
generation of a fused image.

11. The system of Claim 10, the processor further
operable to calculate a change matrix indicating a change
associated with the previous matrix and the current image
data.

12. The system of Claim 10, the processor further
operable to determine a difference between the current
image data and the previous matrix.

13. The system of Claim 10, the processor further operable to compute the fusion matrix only if a change matrix indicates a change associated with a previous matrix and a current matrix.

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14. The system of Claim 10, the processor further operable to compute the fusion matrix at a fusion processor, the fusion processor comprising a member of the group consisting of a neural net, a plurality of logic operators, a field programmable gate array (FPGA), one or more solid state circuits, and a hardware architecture.

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15. The system of Claim 10, the processor further operable to generate a display matrix according to the fusion matrix, the display matrix operable to generate the fused image.

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16. The system of Claim 10, further comprising a display coupled to the processor and operable to display the fused image generated in accordance with the fusion matrix.

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17. The system of Claim 10, the processor further operable to process each current matrix to enhance one or more components of each current matrix.

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18. The system of Claim 10, wherein each sensor of the plurality of sensors is associated with a particular wavelength range.

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19. A system for generating an image, comprising:
means for receiving light at a plurality of sensors,
the light associated with a plurality of images;
means for repeating the following for each sensor of
5 the plurality of sensors:
determining a previous matrix comprising image
information associated with a previous image of the
plurality of images;
generating current image data corresponding to
10 a current image of the plurality of images; and
determining a current matrix using the previous
matrix and the current image data, the current matrix
comprising image information associated with the current
image; and
15 means for computing a fusion matrix according to the
current matrix of each sensor of the plurality of
sensors, the fusion matrix operable to initiate
generation of a fused image.

20. A method for generating an image, comprising:
receiving a light at a plurality of sensors, the
light associated with a plurality of images, each sensor
of the plurality of sensors being associated with a
5 particular wavelength range;
repeating the following for each sensor of the
plurality of sensors:
determining a previous matrix comprising image
information associated with a previous image of the
10 plurality of images;
generating current image data corresponding to
a current image of the plurality of images;
determining a current matrix using the previous
matrix and the current image data, the current matrix
15 comprising image information associated with the current
image, the current matrix determined by:
determining a difference between the
current image data and the previous matrix; and
calculating a change matrix using the
20 difference; and
processing each current matrix to enhance one
or more components of each current matrix;
computing a fusion matrix according to the current
matrix of each sensor of the plurality of sensors by:
25 computing the fusion matrix only if any change
matrix indicates a change associated with a previous
matrix and a current matrix; and

computing the fusion matrix at a fusion processor, the fusion processor comprising a member of the group consisting of a neural net, a plurality of logic operators, a field programmable gate array (FPGA),
5 solid state circuits, and a hardware architecture, the fusion matrix operable to initiate generation of a fused image;

generating a display matrix according to the fusion matrix, the display matrix operable to generate the fused
10 image; and

displaying the fused image generated in accordance with the fusion matrix.